

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A duplexer comprising:

an input filter (Rx filter),

an output filter (Tx filter), and

~~one or more of an isolation line and a delay line,~~

wherein the Rx and Tx filters comprise microwave (MW) resonators comprising a ceramic body having continuous, internally metallized holes,

wherein the ceramic body includes a metal coating substantially covering external surfaces of the ceramic body except for an end face and one or more recesses on a bottom side of the ceramic body,

wherein an output of the Rx filter on the bottom side of the ceramic body is electrically connected to a balun, the balun being implemented in a low-temperature co-fired ceramic (LTCC) on a bottom side of the Rx filter, and

wherein the ceramic body has a first height in an area of the Tx filter and a second height in an area of the Rx filter, the second height being less than the first height.

2. (Previously Presented) The duplexer of claim 1, wherein the ceramic body has a recess on the bottom side of the Rx filter and the balun is in the recess.

3. (Previously Presented) The duplexer of claim 2, wherein a height of the recess and a height of the balun are about equal.

4. (Previously Presented) The duplexer of claim 2, wherein the recess on the bottom side of the Rx filter comprises a non-metallized portion on a first end of the ceramic body, and the Rx filter has a height corresponding to a height of the Tx filter on a second end, the second end being about opposite the first end and having a different height than the first end.

5. (Previously Presented) The duplexer of claim 1, further comprising internal metallization in a hole between the Rx filter and the Tx filter to form an internally metallized hole, the internally metallized hole being electrically connected at a first end to the metal coating and at a second end to an antenna terminal.

6. (Currently Amended) The duplexer of claim 1, wherein:

the Tx filter comprises:

a first MW resonator first ones of the continuous, internally metallized holes;
a second MW resonator; and

at least one decoupling resonator between the first MW resonator and the second MW resonator; and
the Rx filter comprises:

a first MW resonator;
a second MW resonator

second ones of the continuous, internally metallized holes, and; and
wherein the ceramic body comprises at least one decoupling resonator between the Tx
filter and the Rx filter the first MW resonator and the second MW resonator.

7. (Previously Presented) The duplexer of claim 1, wherein the balun is soldered to the ceramic body and is electrically connected to at least one terminal of the duplexer.

8. (Previously Presented) The duplexer of claim 1, wherein the balun is attached to the ceramic body by an electrically conductive adhesive, the electrically conductive adhesive forming an electrical connection between the balun and at least one terminal of the duplexer.

9. (Previously Presented) The duplexer of claim 1, wherein a height of the balun is between about 0.3 and about 0.4 mm, the height of the balun being about equal to a height difference between the Rx filter and the Tx filter.

10. (Currently Amended) The duplexer of claim 1, wherein an edge between the end face and the bottom side of the duplexer ceramic body comprises a step and wherein one or more terminal faces of the duplexer extend over the step.

11. (Original) The duplexer of claim 3, wherein a sum of a height of duplexer and the height of the balun in a first region is approximately equal to a height of the duplexer in a second region.

12. (Original) The duplexer of claim 3, wherein the duplexer and the balun has an about uniform overall height.

13. (Currently Amended) The duplexer of claim 1, wherein an edge between the end face and the bottom side of the duplexer ceramic body comprises a beveled edge and wherein one or more terminal faces of the duplexer extend over the beveled edge.

14. (Original) The duplexer of claim 1, wherein the ceramic body comprises a shared ceramic body.